

***MiFi™ 2200 Mobile Hotspot Browser Interface
by Novatel Wireless***



www.sprint.com

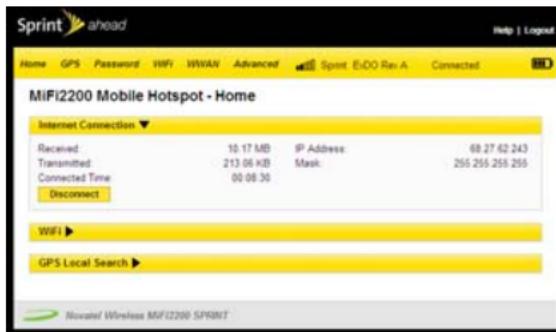
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Your MiFi 2200 Device

Thank you for purchasing a Novatel Wireless MiFi 2200 Mobile Hotspot. This device offers more freedom than ever before. No wires, no cables, no software — configure it through your Web browser.



How to Use This Guide

This guide explains the use of the browser interface that allows you to configure your device as well as access its many features.

- 1** The first section (page 1) gives an overview of the browser interface capabilities, tells you how to log in, and introduces the home page.
- 2** The second section (page 3) gives you information about the menu options in the browser interface.
- 3** The third section (page 39) contains a glossary of technical terms and is followed by an index.

Getting More Information

This guide describes the browser interface that allows you to configure the MiFi 2200. For information about setting up your device on your Sprint account, device maintenance and care, etc., consult the printed Getting Started Guide that came with your device.

Section 1

Your Device's Browser Interface



Interface Basics

- ◆ *The Browser Interface (page 2)*
- ◆ *Opening the Browser Interface (page 3)*
- ◆ *The Home Screen (page 5)*

The Browser Interface

Your MiFi 2200 uses a browser interface to configure the device. The browser interface lets you:

- View the status of aspects of your network.
- Set up wireless security, including MAC and port filtering and port forwarding.
- Set up a temporary hotspot to allow a maximum of five connections to your device without having to share your network name and network key.
- Use GPS technology to search for stores, restaurants, and other locations in your area.

Opening the Browser Interface

Initial Connection and Setup

Note

The battery should be fully charged before using the MiFi 2200 for the first time.

When you press the power button:

- The MiFi 2200 comes on and the power button LED lights up.
- A solid green LED indicates the device is in service and ready to connect.

How to Connect to the MiFi 2200

1. Use your normal WiFi manager on your computer to locate the MiFi 2200 wireless network.

Tip

The steps to connect to a WiFi network vary depending on your operating system and whether you use the native application or third-party software.

Generally you click an icon (often in the Windows notification area or System Preferences > Network on a Mac) where you can select “View Available Wireless Networks.” If you are unfamiliar with wireless networking on your computer, consult the computer help system.

2. If multiple wireless networks are found, highlight the one that has “MiFi” in its name.
3. Click *Connect*.

If this is your first time connecting to the MiFi 2200, continue with these steps.

4. From your computer’s Web browser, enter <http://192.168.1.1> into the address window and press the *Enter* or *Return* key.
5. Enter the password “admin” when requested.

An onscreen wizard will launch and guide you through setting up security for your MiFi 2200.

Important

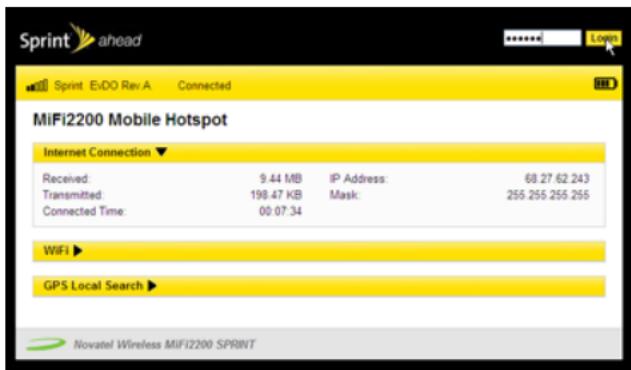
Be sure to record both the administrative password and the network key that you create using the initial setup wizard.

If you cancel the wizard, your network will be left unsecure (open). The wizard will re-launch every time you start the browser interface.

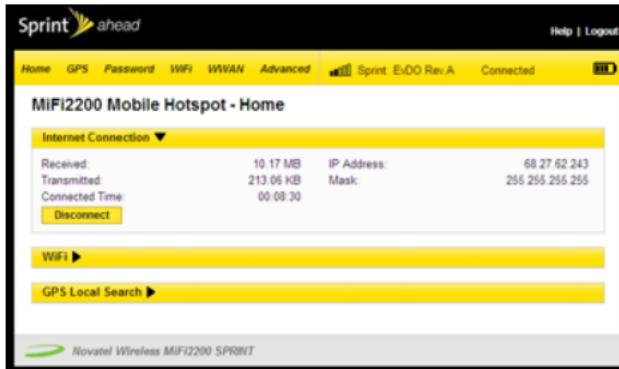
6. Follow the instructions on the screen.
7. After you click **Finish**, your device will restart and you must reconnect to your wireless network and enter the network key you just created.

Open the Browser Interface

1. Open your Web browser and enter <http://192.168.1.1> into the address window. (If this is the first time you have entered the browser interface or if you have used the master reset button, the Initial Setup Wizard will launch.)
2. Type the administrative password into the Login box in the upper right corner and click **Login**.



3. The Home screen will open.

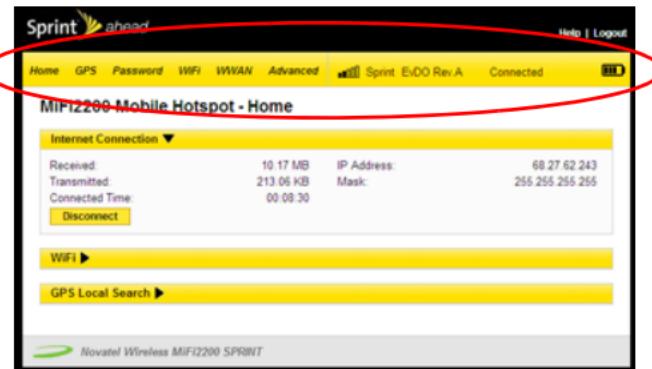


The Home Screen

The Home screen is the first screen you see after logging in to the browser interface. It is the main point of entry for all your work in the browser interface.

The Menu Bar

The menu bar runs horizontally along the top of the browser interface. Besides allowing you to select menu items, the menu bar also displays information about your device's connection strength and battery level.



Home Screen Sections

The Home screen is divided into three sections that you can expand or collapse. Click the solid black pointer next to the section title to expand or collapse that section.

Internet Connection

Internet Connection ▾			
Received:	5.33 MB	IP Address:	68.27.62.243
Transmitted:	121.20 KB	Mask:	255.255.255.255
Connected Time:	00:04:19		

The Internet Connection section tells you:

- The number of bytes received and transmitted
- The duration of the current connection
- The IP address of and subnet mask for the device

WiFi

WIFI ▾			
Profile:		Secure:	IP Address:
Network Name:	Sprint MF2200 4A1	Secure	192.168.1.1
Security:		WEP64	255.255.255.0
Users:		1 / 5	

The WiFi section tells you:

- The profile currently in use
- The network name (also known as the SSID)
- The security method in use
- The number of users currently connected to the device
- The IP address of and subnet mask for the wireless browser interface

To change WiFi settings, use the WiFi menu. See “WiFi Menu” on page 17.

GPS Local Search

See “GPS Local Search” on page 10.

Section 2

Interface Settings



Section 2A

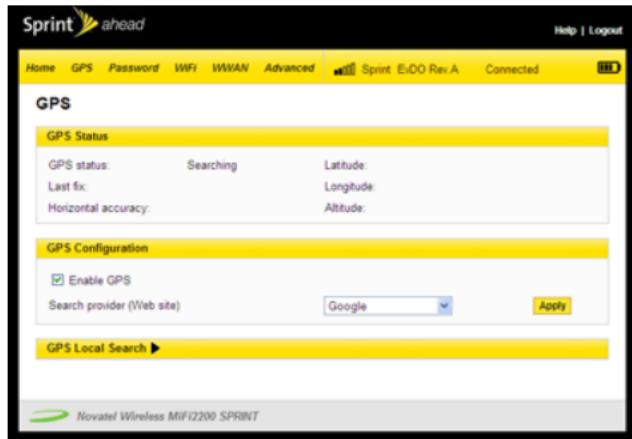
GPS Settings

- ♦ *GPS Screen Sections (page 8)*

GPS settings allow you to enable and configure GPS searching for your device.

GPS Screen Sections

The GPS screen is divided into three sections. You can expand or collapse the third section. Click the solid black pointer next to GPS Local Search to expand that section.



GPS Status

GPS Status			
GPS status:	Acquired	Latitude:	38.977
Last fix:	05/07/2009 01:40:35pm	Longitude:	-94.750
Horizontal accuracy:	42 ft	Altitude:	882 ft

Once a location fix has been made, the GPS Status section of the GPS screen gives you the following information:

- Last fix – date and time of last fix
- Horizontal accuracy – a measure of how close an estimate of a GPS position is to the true location
- Latitude
- Longitude
- Altitude

GPS Configuration



Use this section to configure the GPS settings.

1. Select the check box to turn on GPS.
2. In the Search provider list, click a search provider.
3. Click **Yes** to accept the GPS privacy agreement.



4. Click **Apply** to confirm the settings.

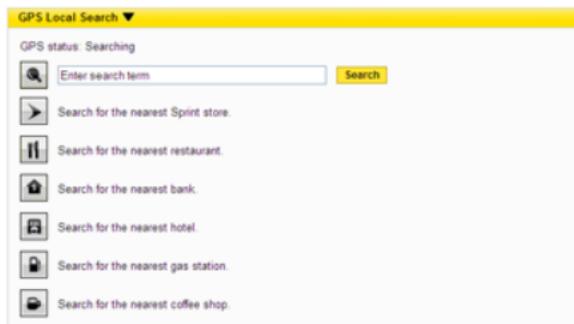
GPS Local Search

Once the GPS status changes from “Searching” to “Acquired,” you can use search for Sprint stores, restaurants, banks, hotels, gas stations, and coffee shops or a specific address.

Tip

If the GPS status does not change to Acquired, try moving the device close to a window or outdoors.

- ▶ Click the button next to the type of business you want to search for.
 - or –
- ▶ Enter a business name or an address in the search box and click **Search**.



Section 2B

Password Settings

- ♦ *Create a New Administrative Password (page 11)*

Password settings allow you to change the administrative password that gives access to the browser interface.

Important

Record your administrative password. If you forget it, you will have to reset the device before you can use the browser interface.

Create a New Administrative Password

1. Type your current password in the Current Password box.
2. Type the new password (must have 4 to 64 characters) in the New Password box and then again in the Verify New Password box.
3. Click **Apply**.

The screenshot shows a web-based administrative interface for a Sprint Novatel Wireless MiFi2200. The top navigation bar includes links for Home, GPS, Password, WiFi, 3G/WAN, Advanced, and a signal strength indicator. The main content area is titled 'Password' and contains a sub-section titled 'Set Administration Password'. It features three input fields: 'Current Password', 'New Password' (with a note '(4 ~ 64 characters)'), and 'Verify New Password'. Below these fields are 'Apply' and 'Cancel' buttons. At the bottom of the page, the text 'Novatel Wireless MiFi2200 SPRINT' is visible.

WiFi Menu

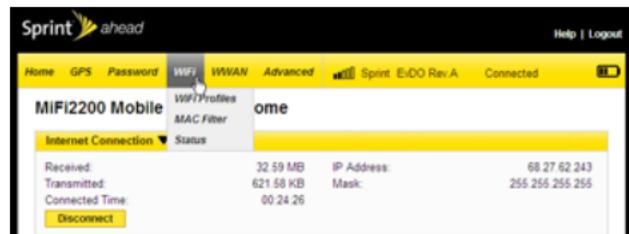
- ♦ *WiFi Menu (page 12)*

The WiFi menu allows you to work with profiles, set up a temporary hotspot, set MAC filters, and view status information for the WiFi network.

WiFi Menu

The WiFi menu has three components:

- **WiFi Profiles** – to view or change settings for your Secure profile or to set up a Temporary Hotspot.
- **MAC Filter** – to allow only certain devices to connect to the MiFi device.
- **Status** – to view profile information, see who is connected to the device, and view the WiFi Log. You can also retrieve your Network Key from this screen.



WiFi Profiles

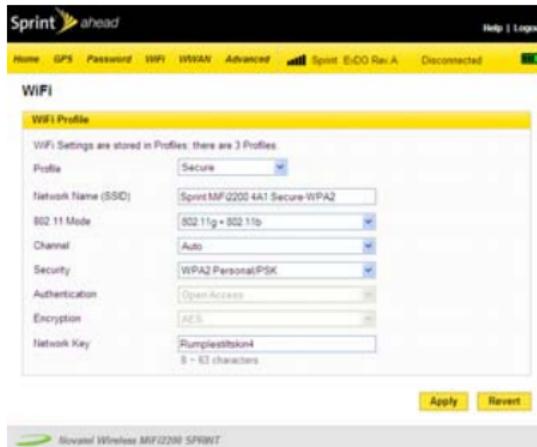
Click **WiFi Profiles** on the WiFi menu to configure your secure profile or set up a temporary hotspot.

The WiFi Profile Screen

The WiFi Profile screen displays the following information:

- Profile – The profile currently being used. (See “Choosing a Profile” on page 14.)
- Network Name (SSID) – Name of the network you are connected to. You can change the name to something more descriptive if you want, or if other devices are in use within range of yours.
- 802.11 Mode – The type of wireless networking you are currently using. The available modes are:
 - 802.11g+802.11b
 - 802.11g
 - 802.11b
- Channel – The radio channel that the device is using. This should be usually set to Auto (default) and left unchanged. Available channels are 1 through 11.

- Security – The type of security the profile is using. This applies to the secure and the temporary hotspot profiles. (See “Setting Security” on page 14.)
- Authentication – Locked to Open Access for all profiles.
- Encryption – Displays the type of encryption for the Security type in use.
- Network Key – Passcode or password used to access the network. The required format varies by type of security.



Choosing a Profile

- ▶ Select a profile from the Profile list:
 - Secure — This is the profile you should use most of the time. You can set up this profile with the security measures you need to use your device safely.
 - Temporary Hotspot — This profile allows you set up a temporary hotspot to allow others in your work area (maximum of five) to go online at the same time.
 - Open — This profile is not secure and should be avoided.

Setting Security

You can use WEP (64- or 128-bit), WPA, or WPA2 security.

Tip

Some WiFi clients become confused if the security is changed and the network name is not. If you change security settings and do not get asked for the new network key when you try to reconnect, delete the existing “old” network name from your “Preferred Networks” list. Then you can reconnect.

Important

Record your network key.

1. From the WiFi Profile screen, select **Secure** as the Profile.
2. Select a security protocol from the Security list. (The Encryption box displays the corresponding encryption level.)
3. Enter a new network key in the Network Key box. (Permissible characters are listed in gray just under the box.)
4. Click **Apply**.

Setting Up a Temporary Hotspot

You can use the device to set up a temporary hotspot to allow a maximum of five connections to your MiFi 2200 at one time.

This profile generates a temporary network name and network key that you can use to allow others to connect to your device without your having to change the security settings on your secure profile.

To set up the temporary hotspot

1. From the WiFi Profile screen, select *Temporary Hotspot* as the profile.

WiFi

WiFi Profile

WiFi Settings are stored in Profiles: there are 3 Profiles.

Profile	Temporary Hotspot
Network Name (SSID)	Sprint MiFi2200 A41 Temp
802.11 Mode	802.11g + 802.11b
Channel	11
Security	WEP 64-bit
Authentication	Open Access
Encryption	40/64 Bit (128 Hex Digits)
Network Key	12345

5 characters, or 10 HEX characters

Settings for this profile are auto-generated: [Generate new values](#)

Apply **Revert**

You will see a new (temporary) network name (SSID) and network key. In the example shown above, the temporary network name is "Sprint MiFi2200 A41 Temp" and the temporary network key is "12345."

2. Click **Apply**. Members of your workgroup can now use the temporary network name and network key to connect to your device.

Tip

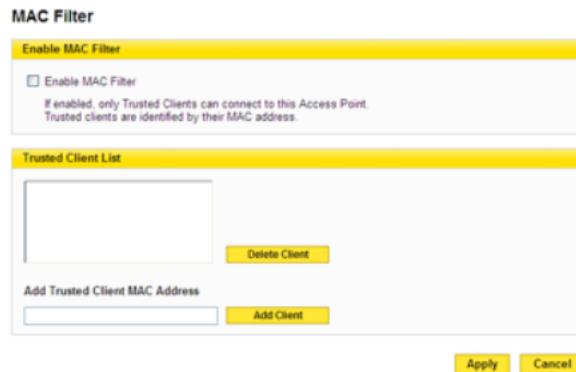
Click "Generate new values" to create a new network name and network key.

MAC Filter

MAC filtering allows you to limit access to your device to only those devices with a specified MAC address (a unique code assigned to hardware such as network adapters).

The MAC Filter Screen

The MAC Filter screen allows you enable or disable MAC filtering and to add or delete MAC addresses from the trusted client list.



Important

Do not enable MAC filtering unless you have added your own MAC address to the trusted client list. Otherwise you will be unable to access the device.

Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter. It consists of six pairs of numbers and letters (for example, 00-21-9B-1C-64-34).

You can view the MAC address for any device connected to the MiFi device in the WiFi Clients section of the WiFi Status screen. (See “WiFi Clients” on page 26.)

- On a Windows machine, you can find the MAC address by running “ipconfig /all” from the cmd window. The MAC address is referred to as the Physical Address. (Select **Start > All Programs (or Programs) > Accessories > Command Prompt** to open the cmd window.)
- On a Mac, open **System Preferences > Network**. In the Show list, click **Airport**. The MAC address is the Airport ID.

Important

Make sure you get the MAC address for the wireless network adapter and not the Ethernet controller (NIC) if the machine has both.

Using MAC Filtering

1. From the MAC Filter screen, type the MAC address for your computer into the Add Trusted Client MAC Address box and click **Add Client**. You can use either ":" or "-" as the separator (for example, 00:21:9B:1C:64:34 or 00-21-9B-1C-64-34).

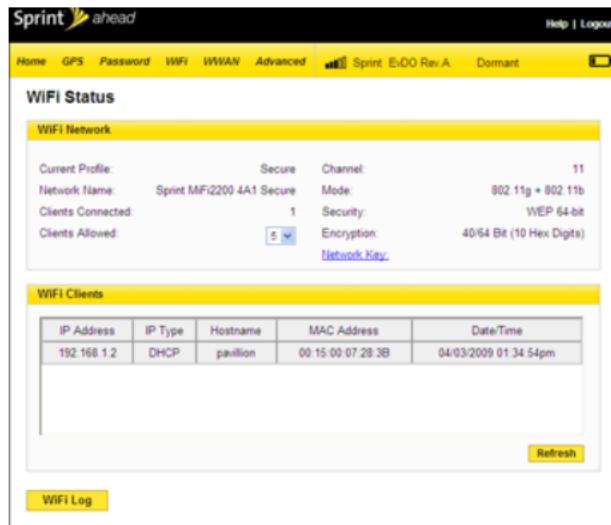
Tip

You can cut-and-paste your computer's address from the WiFi Clients section of the WiFi Status screen. (See "WiFi Clients" on page 18.)

2. If desired, type the MAC address for other computers into the Add Trusted Client MAC Address box and click **Add Client**.
3. Select the Enable MAC Filter check box and click **Apply**.

Status

WiFi Status provides you with information about your wireless network.



The screenshot shows the WiFi Status interface for a Sprint device. The top navigation bar includes Home, GPS, Password, WiFi, WWAN, Advanced, and a signal strength indicator. The WiFi Status screen has two main sections: WiFi Network and WiFi Clients.

WiFi Network:

Current Profile:	Secure:	Channel:
Sprint MF2200 4A1 Secure	Mode:	11
Clients Connected: 1	Security:	802.11g + 802.11b
Clients Allowed: <input checked="" type="checkbox"/>	Encryption:	WEP 64-bit
		40/64 Bit (10 Hex Digits)
		Network Key...

WiFi Clients:

IP Address	IP Type	Hostname	MAC Address	Date/Time
192.168.1.2	DHCP	pavilion	00:15:00:07:28:3B	04/03/2009 01:34:54pm

At the bottom are a Refresh button and a WiFi Log button.

The WiFi Status Screen

The WiFi Status screen is divided into three sections.

WiFi Network

WiFi Network				
Current Profile:	Secure:	Channel:	11	
Network Name:	Sprint MiFi2200 4A1 Secure	Mode:	802.11g + 802.11b	
Clients Connected:	1	Security:	WEP 64-bit	
Clients Allowed:	<input type="button" value="▼"/>	Encryption:	40/64 Bit (10 Hex Digits)	
			Network Key...	

The WiFi Network section of the WiFi Status screen displays the following information:

- Profile currently in use.
- Name of the network you are connected to.
- Number of clients connected to the device.
- Maximum number of clients allowed to connect to the device. You can select the maximum number connections in the Clients Allowed box.
- Channel being used.
- Current wireless mode.
- Security type and encryption for the current profile.
- Network Key link (click to retrieve the network key).

WiFi Clients

WiFi Clients				
IP Address	IP Type	Hostname	MAC Address	Date/Time
192.168.1.2	DHCP	pavillion	00:15:00:07:28:3B	04/03/2009 01:34:54pm

The WiFi Clients section of the WiFi Status page shows the clients that are currently connected to the device. This is another way you can find the MAC address for a particular device.

WiFi Log

- ▶ Click the *WiFi Log* button to view a listing of WiFi events (most recent first).

WiFi Event Log - Windows Internet Explorer	
http://192.168.1.1/wifilog.html	
WiFi Log >	Current Time: 04/16/09 03:31:16pm
	04/16/09 03:24:45pm: Association 00:15:00:07:28:3B
	04/16/09 03:24:42pm: BSS Start 00:13:E0:E7:04:A1
	04/16/09 03:23:35pm: Association 00:15:00:07:28:3B
	04/16/09 03:23:37pm: BSS Start 00:13:E0:E7:04:A1

WWAN Menu

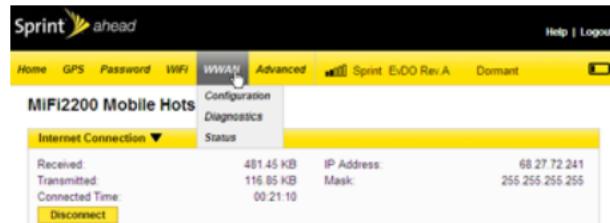
- ◆ *WWAN Menu (page 19)*

The WWAN menu allows you to update your Preferred Roaming List, and provides information about your Sprint connection as well and tools for technical support.

WWAN Menu

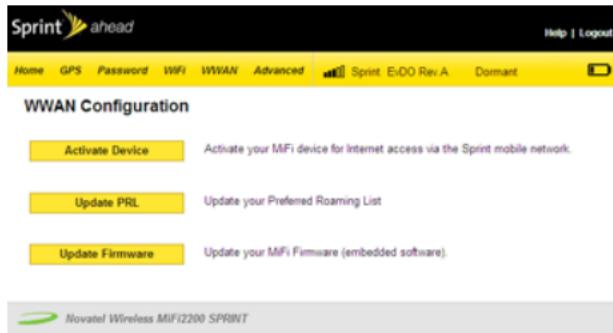
The WWAN Menu has three components:

- **Configuration** – to reactivate your device, update your PRL, or update the firmware of your device.
- **Diagnostics** – to view the status of your connection to the Sprint network, view information about your MiFi 2200 device, and view an event log about your connections to the Sprint network.
- **Status** – to view information about your Internet connection, to view traffic counters, and to view an Internet connection log.



Configuration

Click **Configuration** in the WWAN menu to reactivate your device, update your PRL, or update the firmware of your device.



The WWAN Configuration Screen

Select from the following options on the WWAN Configuration screen:

- ▶ Click **Activate Device** to reactivate your device for use on the Sprint network.
- ▶ Click **Update PRL** to update your Preferred Roaming List.

Tip

You should update your PRL about every three months to make sure you have the latest enhancements from Sprint.

- ▶ Click **Update Firmware** to update the internal software (firmware) that is embedded in the device.

Note

You can use this function only if you have received an MSL number from Sprint technical support.

WARNING

If Sprint technical support has you upgrade the firmware, be very careful not to turn off the device while the upgrade is in progress.

Diagnostics

Click **Diagnostics** in the WWAN menu to access status information about your Internet connection and the MiFi device.



The WWAN Diagnostic Screen

The WWAN Diagnostic screen is divided into three sections.

WWAN Connection



The WWAN Connection section displays the following information:

- Connection status:
 - Active – connected and transmitting data
 - Dormant – connected but not transmitting data
 - Disconnected – not connected to the network
- Type of network (technology) you are connected to.
- Roaming status

Important

Do not click Manual Device Setup unless you have received an MSL number from Sprint technical support.

WWAN Modem

WWAN Modem	
Manufacturer:	Novatel Wireless
Model:	MF2200 SPRINT
Firmware Version:	132
ESN:	5B102E38
MDN:	8506633307
MSID:	0582135433
NAI:	novatelwireless170@sprintpcas.com
PRL Version:	60713
Reset Modem	

The WWAN Modem section displays the following information:

- Manufacturer – manufacturer of your MiFi device
- Model – model name or number of the device
- Firmware version – current internal software (firmware) version
- ESN – unique number the network uses to identify your device
- MDN – public ID for your specific wireless service
- MSID – internal ID Sprint uses to identify your account
- NAI – address of your device on the Sprint network

- PRL Version – allows you to verify that your PRL (preferred roaming list) is the most current.

Important

*Do not click **Reset Modem** unless you have received an MSL number from Sprint technical support.*

WWAN Event Log

The WWAN Event Log section lists network connection events and times when they occurred. Sprint technical support uses the log as a troubleshooting tool.

WWAN Event Log	
WWAN Log:	
Current Time:	04/03/09 01:59:12pm
04/03/09 01:58:12pm:	39 Connected State
04/03/09 01:55:02pm:	39 Connected State
04/03/09 01:54:12pm:	39 Connected State
04/03/09 01:54:02pm:	39 Connected State
Refresh	

WWAN Status

The WWAN Status screen displays information about your Internet connection.

Internet Connection

Received:	0.31 KB	IP Address:	68.27.72.241
Transmitted:	0.12 KB	Mask:	255.255.255.255
Connected Time:	09:03:29	Gateway:	68.27.72.241
Disconnect			

Traffic Counters

This data is informational only, and is not used for billing purposes.

	Lifetime	Resettable
Start Date:	04/03/2009 01:26:07pm	04/03/2009 01:26:07pm
Total connection time:	03:02:29	00:00:16
Data Received:	84.25 MB	0.00 KB
Data Transmitted:	2.04 MB	0.00 KB
Total Data:	86.29 MB	0.00 KB
Reset Counter		

Internet Connection Log

The WWAN Status Screen

The WWAN Status screen is divided into three sections.

Internet Connection

Internet Connection			
Received:	0.31 KB	IP Address:	68.27.72.241
Transmitted:	0.12 KB	Mask:	255.255.255.255
Connected Time:	09:03:29	Gateway:	68.27.72.241
Disconnect		DNS:	68.28.58.92

The Internet Connection section displays the following information:

- Number of bytes received and transmitted
- Duration of the current connection
- The device's IP address and subnet mask
- Gateway IP address
- DNS server IP address

► Click **Disconnect** to leave the Sprint network or **Connect** to rejoin the Sprint network.

Traffic Counters

Traffic Counters		
This data is informational only, and is not used for billing purposes.		
	Lifetime	Resettable
Start Date:	04/03/2009 01:26:07pm	04/03/2009 01:26:07pm
Total connection time:	03:02:29	00:00:16
Data Received:	84.25 MB	0.00 KB
Data Transmitted:	2.04 MB	0.00 KB
Total Data:	86.29 MB	0.00 KB
Reset Counter		

The Traffic Counters section displays the following:

- Date and time connection was made
- Total duration of connection
- Total data bytes received and transmitted, plus the total for both directions

This section displays both a cumulative (lifetime) count and a count for the current session (which can be reset).

- ▶ Click **Reset Counter** to set all counts back to zero.

Internet Connection Log

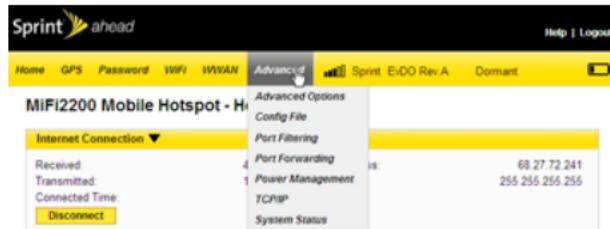
- ▶ Click **Internet Connection Log** to display a log of outgoing traffic showing these details:
 - Date/Time
 - Client IP Address (IP address of sender)
 - Destination (IP address of recipient)
 - Port (computer port through which data was sent)
 - Type (connection protocol used)

Date/Time	Client IP Address	Destination	Port	Type
04/16/09 03:35:13pm	192.168.1.2	193.138.220.187	80	TCP
04/16/09 03:35:12pm	192.168.1.2	68.28.58.92	53	UDP
04/16/09 03:35:12pm	192.168.1.2	193.138.220.187	80	TCP
04/16/09 03:35:12pm	192.168.1.2	91.103.67.144	7022	UDP
04/16/09 03:34:41pm	192.168.1.2	193.138.220.187	80	TCP
04/16/09 03:34:39pm	192.168.1.2	68.28.58.92	53	UDP
04/16/09 03:34:12pm	192.168.1.2	193.138.220.187	80	TCP
04/16/09 03:34:12pm	192.168.1.2	68.28.58.92	53	UDP
04/16/09 03:34:11pm	192.168.1.2	193.138.220.187	80	TCP
04/16/09 03:34:10pm	192.168.1.2	68.28.58.92	53	UDP

Advanced Menu

- ◆ *Advanced Menu (page 25)*

The Advanced menu allows you to back up and restore your configuration, specify router settings such as DHCP, port filtering, and forwarding, and to customize power management settings.



Advanced Menu

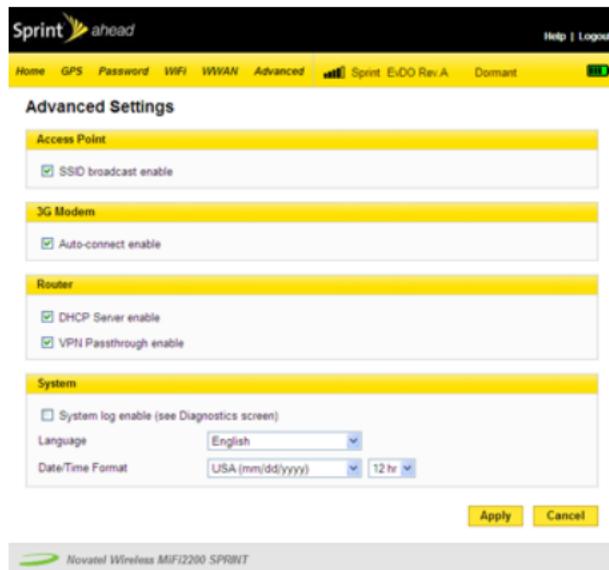
The Advanced menu has seven components:

- Advanced Options – to enable SSID broadcast, auto-connecting the modem, DHCP, VPN passthrough, or the System log.
- Config File – to back up or restore a file containing your device settings.
- Port Filtering – to specify which applications can access the Internet and through which port(s).
- Port Forwarding – to specify which applications can access your computer through the Internet and through which port(s). You might use this if you have an FTP server on your system or play certain online games.
- Power Management – to customize your device's power-saving settings.

- TCP/IP – to view or change the IP address and subnet mask for your device, and to view the MAC address and DHCP address range for your device.
- System Status – to view information about your device and to view the system log. You can also restart the device or restore it to its factory default settings.

Advanced Settings

Click **Advanced Options** in the Advanced menu to configure your device or to enable the system log.



The Advanced Settings Screen

The Advanced Settings screen is divided into four sections.

Access Point



Enabling SSID broadcasting allows other nearby computers to see your device's network name (SSID). This is what you see when you select "View Available Wireless Networks."

Disabling SSID broadcasting provides additional security but you will have to re-enable it if you lose your automatic connection.

- ▶ Select the SSID broadcast enable check box to enable SSID broadcasting, or clear the check box to disable SSID broadcasting, and then click *Apply*.

3G Modem



Enabling auto-connect allows your device to connect to the Sprint network automatically when it is turned on.

- ▶ Select the Auto-connect enable check box to enable auto-connection, or clear the check box to disable auto-connection, and then click *Apply*.

Router



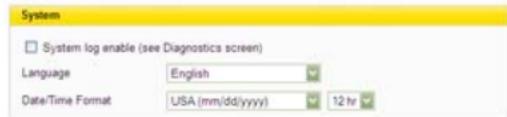
Enabling the DHCP server allows the device to automatically assign a local IP address to a new device joining your network (such as a wireless printer or an additional laptop). When the DHCP server is disabled, you will have to assign static IP addresses to all devices on your network.

- ▶ Select the DHCP Server enable check box to enable the DHCP server, or clear the check box to disable the DHCP server, and then click *Apply*.

VPN passthrough is required if you are going to connect to a VPN (such as a corporate system).

- ▶ Select the VPN Passthrough enable check box to enable VPN passthrough, or clear the check box to disable VPN passthrough, and then click *Apply*.

System



The System section allows you to select the language and the date and time format you prefer and to turn on the system log.

Note

You can view the system log from the System Status screen (see page 36).

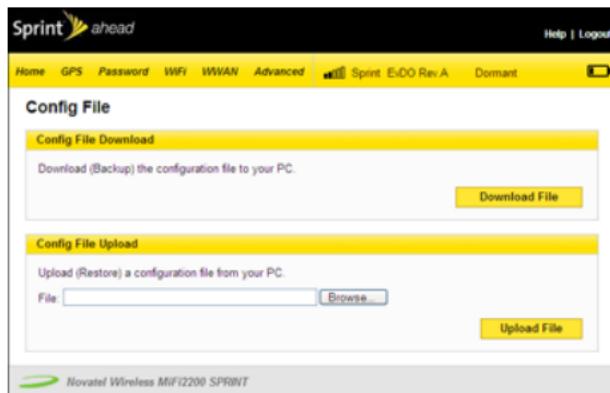
1. In the Language list, click the language you wish to use. (Currently English is the only option.)
2. In the Date/Time list, click the date format (U.S. or European) and the time system (12-hr or 24-hr) that you want to use.

3. Optionally, you can select the System log enable check box if you want to create a system log.

4. Confirm your selections and click *Apply*.

Config File

Click *Config File* in the Advanced menu to back up your configuration file (device settings) to your computer, or to restore a saved configuration file from your computer.



The Config File screen is divided into two sections and allows you to back up and restore your MiFi configuration settings.

Config File Download

To back up your device's configuration file to your computer

1. Click *Download File*.
2. Click **Save** to place the file "config.xml.savefile" on your computer. You may rename the file. (If the file opens in your browser instead of downloading, use your browser's File menu to save the file to your computer.)

4. Click **OK** when the "Upload completed" message appears.

Important

If your WiFi settings have changed since you created a backup file, you may lose your connection after restoring from the backup file. You will need to reconnect using your new (changed) settings.

Config File Upload

To restore a configuration file backed up on your computer to your device

1. Click **Browse** and navigate to the backup file on your computer.
2. Click the file to highlight it and then click **Open**.
3. Click *Upload File*.

Port Filtering

Click **Port Filtering** in the Advanced menu to enhance the security of your system by controlling which applications are allowed to access the Internet.

Port filtering allows you to conserve bandwidth by preventing non-business applications from accessing the Internet, and to prevent applications such as online games from accessing the Internet.

The screenshot shows the Sprint ahead web interface with the following details:

- Header:** Sprint ahead, Home, GPS, Password, WiFi, 3G/WiFi, Advanced, Sprint 3G Rev A, Domaint, Help | Logout.
- Section:** Port Filtering
- Enable Port Filtering:** A checkbox labeled "Enable Port Filtering" with the note "If enabled, only traffic from Allowed Applications can access the Internet." is checked.
- Allowed Applications:** A list of checkboxes for various protocols: DNS (Domain Name Server), HTTP, HTTPS, FTP, E-mail (POP3), E-mail (IMAP), VPN, Telnet, and RTP. The "Custom Applications" button is highlighted.
- Buttons:** Apply, Cancel.
- Footer:** Novatel Wireless MiFi2200 SPRINT.

The Port Filtering Screen

The Port Filtering screen allows you to enable port filtering, select common applications to allow access to the Internet, and set up custom applications for access to the Internet.

Port Filtering for Standard Applications

1. From the Port Filtering screen, select the *Enable Port Filtering* check box.
2. Select the check boxes for the applications for which you want to allow access to the Internet.
3. Click *Apply*.

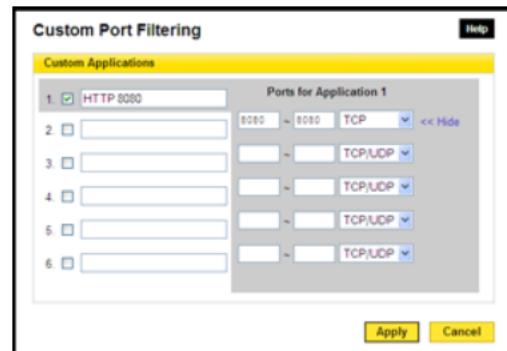
Note

The device uses standard ports for these applications. If you have applications that do not use the standard ports or that are not listed under *Allowed Applications*, use *Custom Applications*.

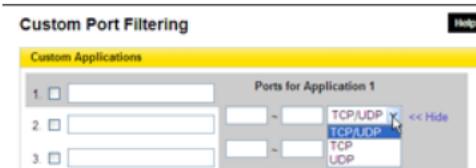
Port Filtering for Custom Applications

To set up port filtering for a custom application, you will need to know the port numbers (up to five ports or port ranges) and the protocol (TCP, UDP, or both) the application uses for its outgoing traffic.

1. From the Port Filtering screen, select the *Enable Port Filtering* check box.
2. Click *Custom Applications*.
3. Enter a name for the application and click the *Ports* link.



4. Enter the port or port range. You can enter up to five ports or port ranges.
 - Single port – enter the port number in both fields.
 - Port range – enter the beginning port number in the left field and the ending port number in the right field.
5. For each port number or range, select the protocol (TCP, UDP, or both) used by that port or port range.



6. Click *Hide*.
7. Click *Apply*.

Port Forwarding

Port forwarding allows designated users or applications to reach specified servers, such as FTP and DNS servers, on your computer. Also, some online games require incoming access to work properly.

Note

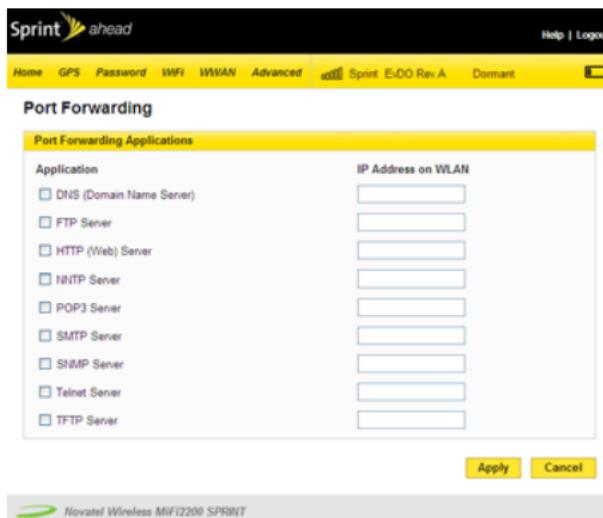
You cannot use port forwarding with a standard Sprint data account. To use port forwarding, you must request a static IP (sometimes called public IP) address. Contact your direct sales representative or Sprint Customer Service to purchase a static IP address for mobile applications.

Important

You will need to set up static IP addresses on your WLAN for each device that has an application to which you want to forward.

The Port Forwarding Screen

The Port Forwarding screen allows you to enter the local static IP address for each application that you want to receive traffic from the Internet.



1. From the Port Forwarding screen, select the check box for the application you want to enable.

2. Type the local static IP address of the device hosting the application into the IP Address on WLAN box.
3. Click **Apply** when you have finished adding applications.

Important

Port forwarding creates a security risk and should be disabled when not needed.

Power Management

Your device can switch to a low-power mode when it is idle. The Power Management screen allows you to set the maximum time before the MiFi device switches to low-power mode. You can set separate times for AC power and battery power. When the device is on battery power, you can also set the length of time at which the device will shut down. You can also turn off the device's LEDs to save additional power.

The Power Management Screen

Use the Power Management screen to set how long the device is idle before it switches to low-power mode.

The LEDs on your MiFi can be switched off, to make it less obvious that it is in use.

Disable LEDs

When using AC power, your MiFi can switch to Low Power Mode when idle.

Switch to Low Power Mode

When using Battery Power, your MiFi can switch to Low Power Mode, or Shutdown, when idle.

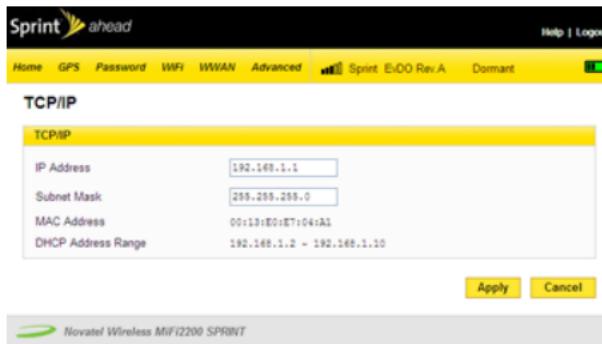
Switch to Low Power Mode

Shutdown

1. From the Power Management screen, select the Disable LEDs check box to disable or clear the check box to enable the device's LEDs.
2. In the AC Power section, click the time that elapses before your device switches to low-power mode when not in use (2 to 60 minutes) or click **Never** to disable this feature when on AC power.
3. In the Battery Power section, click the time that elapses before your device switches to low-power mode when not in use (2 to 60 minutes), and the time before your device will shut down (2 to 60 minutes); or click **Never** to disable either or both of these features when the device is on battery power.
4. Click **Apply**.

TCP/IP

The TCP/IP screen allows you to view the local (WLAN) IP address and the MAC address for your device.



The TCP/IP Screen

From the Advanced menu, click **TCP/IP** to display the following information about your device:

- Local IP address
- Subnet mask
- MAC address of the device
- DHCP address range used by the device's DHCP server

The IP address and subnet mask can be changed by entering new numbers and clicking **Apply**. If you have devices with local static IP addresses, those addresses should not be within the DHCP range.

System Status

The System Status screen allows you to view real-time system information and the system log, and to restart your device or restore it to factory defaults.

The screenshot shows the System Status screen with the following details:

System Information

AP/Router	Version
Manufacturer: Novatel Wireless	AP: 11.43.7
Model: MIFI2200 SPRINT	Router: 012
Serial No: LJ020908400125	Modem: 133

System Log

System Log: XING Version 0.0.0, Log start on 01/06/1900 00:00:00am GMT
04/16/09 04:13:37pm > Current Time

Buttons: Refresh, Restart, Reset to Factory Defaults

The System Status Screen

From the Advanced menu, click **System Status** to display the following information about your device:

- Manufacturer
- Model
- Serial number
- AP (access point) version
- Router version
- Modem version
- System log (if enabled)

Restarting or Resetting Your Device

In addition viewing status information, you can restart your device or reset it to factory defaults from the System Status screen.

- ▶ Click **Restart** to re-initialize the device (same as turning device off and on again).
 - or –
- ▶ Click **Reset to Factory Defaults** to reset the device WiFi settings to the original state it was in when you purchased it.

Important

After executing either step you may lose your connection and have to reconnect, and after clicking Reset to Factory Defaults you will need to rerun the startup wizard and reset your security.

Section 3

Reference



Section 3A

Glossary

- 802.11 (b, g, n) – A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.
- Access Point – A device that allows wireless communication devices to connect to a wireless network using a standard such as WiFi.
- DHCP – Dynamic Host Configuration Protocol. A network application protocol used to obtain configuration information for an Internet Protocol network.
- DHCP Server – A server that uses DHCP to obtain configuration information for operation in an Internet Protocol network.
- DNS – Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.

- ESN – Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.
- Firmware – A program that internally controls an electronic device.
- FTP – File Transfer Protocol. A network protocol for exchanging files over a TCP network.
- Gateway – A network point that acts as an entrance to another network that uses a different protocol.
- Host Name – The unique name by which a network-attached device is known on a network.
- Hotspot – A WiFi access point or area for connecting to the Internet.
- HTTP – Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- IMAP – Internet Message Access Protocol. An Internet standard protocol for email retrieval.
- IP Type – The type of service provided over a network.
- IP address – Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).

- LAN – Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another.
- MAC Address – A number that uniquely identifies a given network adapter on a LAN. MAC addresses are 12-digit hexadecimal numbers.
- MSID – Mobile Station ID. A number provisioned by a service provider to a mobile phone that identifies that phone to the network.
- MSL – Master Subsidy Lock. A numeric code for accessing certain phone settings.
- NAI – Network Access Identifier. A standard way of identifying users who request access to a network.
- Network Mask – A number that allows IP networks to be subdivided for security and performance.
- NNTP – Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet (newsgroup) articles.
- POP – Post Office Protocol. An Internet protocol for retrieving email from a remote server over a TCP/IP connection.
- Port – A virtual data connection used by programs to exchange data.
- Port Forwarding – A process that allows remote devices to connect to a specific computer within a private LAN.
- Port Number – A number assigned to a user session and server application in an IP network.
- Protocol – A standard that enables connection, communication, and data transfer between computing endpoints.
- PPTP – Point-to-point Tunneling Protocol. A method for implementing virtual private networks that does not provide confidentiality or encryption.
- PRL – Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming.
- RFB – Remote Frame Buffer. A protocol for remote access to graphical user interfaces.
- Router – A device that connects two networks.
- RTP – Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.
- SMTP – Simple Mail Transfer Protocol. An Internet standard for email transmission across IP networks.
- SSID – Service Set Identifier. The name assigned to a WiFi network.

- TCP – Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.
- TCP/IP – Transmission Control Protocol/Internet Protocol. A communications protocol developed under contract from the U.S. Department of Defense to internetwork dissimilar systems.
- Telnet – Telecommunication Network. A network protocol used on the Internet or on local area networks.
- TFTP – Trivial File Transfer Protocol. A file transfer protocol with a subset of FTP functionality.
- UDP – User Datagram Protocol. A simple transport protocol used to transfer information on the Internet.
- VNC – Virtual Network Computing. A graphical desktop sharing system that uses the RFB protocol to remotely control another computer.
- VPN – Virtual Private Network. A secure private network that runs over the public Internet.
- VPN Passthrough – A feature that allows a client to establish a tunnel only with a specific VPN server.
- WAN – Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).
- WEP – Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- WiFi – Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE (Institute of Electrical and Electronics Engineers).
- WiFi Client – A wireless device that connects to the Internet via WiFi.
- WLAN – WiFi LAN. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices.
- WPA/WPA2 – WiFi Protected Access. A security protocol for wireless 802.11 networks from the Wi-Fi Alliance.
- WWAN – Wireless Wide Area Network. Wireless connectivity to the Internet achieved using cellular tower technology. This service is provided through cellular providers. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the regional boundaries of the cellular service.

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